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11 December 2006

Ms. Christine Williams
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And

Ms. Claudia Sait
Project Manager – Federal Facilities
Bureau of Remediation & Waster Management
Maine Department of Environmental Protection
State House, Station 17
Augusta, Maine 04333-0017

Subject: Revision Pages
Long-Term Monitoring Plan – Site 9 (Neptune Drive Disposal Site)
Naval Air Station Brunswick, Maine
Contract No. N62472-02-D-0810
ECC Project No. 5700.017

Dear Ms. Williams and Ms. Sait,

On behalf of the United States Navy, ECC is please to present revised pages for the October 2005 Long-Term Monitoring Plan, Site 9, Naval Air Station Brunswick, Maine to replace the current pages in the plan. These LTM Plan revisions were completed at the request of the MEDEP and EPA. The revisions affect only the following text of the LTM Plan:

- Contents, page 2, page numbers for Section 3.4
- Section 1.4.6 Analytical Methods, second paragraph
- Section 3.3 Analytical Parameters and Procedures, third bullet text, and
- Section 3.4 Program Modifications, first paragraph

Note that all figures, tables and appendices remain the same as presented in the October 2005 Final Long-Term Monitoring Plan for Site 9. Please insert the attached revision pages into the appropriate location within the October 2005 LTM Plan for Site 9. These revised pages will supercede the previous version (Revision 1) of these pages.

If additional information is required please contact Mr. Orland Monaco at (215) 897-4911, or Ms. Lisa Joy at (207) 921-1717.

Regards,

Al Easterday
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3.4	11/30/2006	2	Program Modifications, first paragraph
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- Existing wells (21 Navy Exchange Service Station site wells) (listed in Table 1-1) installed at areas adjacent to Site 9 are currently gauged in order to obtain supplemental groundwater flow data to better understand the hydraulic conditions at Site 9. The gauging of these supplemental monitoring wells may cease once the monitoring objective has been achieved.

- The Long-Term Monitoring Program has been modified to add the determination of field parameters in accordance with EPA/600/4-79020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), turbidity (Method 180.1), dissolved oxygen (Method 360.1), and Eh will be recorded for groundwater, surface water, and seep samples collected at Site 9.

- The condition of surface impoundment pond gauges and evidence of a "sheen" on the surface water within the surface impoundment ponds will be recorded on the field inspection forms during each sampling event.

Changes to the Long-Term Monitoring Program at Site 9 are summarized in Table 1-1.

1.4.2 Sampling Frequency

The initial LTMP established the requirement for monitoring/sampling to be conducted on a quarterly basis for 5 years. Tri-annual sampling was initiated in June 1996 following approval by MEDEP and EPA Region 1 on 19 April 1996. Following a review of the reported groundwater concentrations in Monitoring Events 1 through 13, sampling frequency was reduced to bi-annual sampling in September 1999.

1.4.3 Sampling Method

The sampling methods for surface water, sediment, and seep sampling will remain unchanged from the initial LTMP. The standard operating procedures for groundwater sampling have been revised to reflect the use of both aqueous diffusion samplers and low-flow sampling using dedicated submersible pumps. The standard operating procedures for field sampling of groundwater, surface water, sediment, and leachate seep sampling methods are provided in the Base-Wide Quality Assurance Project Plan (in progress).

Two of 12 groundwater sample locations at Site 9 (MW-NASB-069 and MW-NASB-071) are sampled using low-flow sampling techniques since SVOCs are also collected at these well locations. Ten of 12 groundwater sample locations at Site 9 (MW-NASB-021, MW-NASB-022, MW-NASB-071, MW-NASB-072, MW-NASB-074, MW-NASB-075, MW-NASB-076, MW-NASB-077, MW-NASB-080, and MW-NASB-227) are sampled using aqueous diffusion samplers in the well screen interval. A summary of the sample locations and sampling methods is presented in Table 1-1.

1.4.4 Staff Gauge Monitoring

Two retention ponds at the site formed due to the installation of two surface water impoundments at Site 9 in 1997. One staff gauge has been established in each pond and the water level is recorded during each sampling event.

1.4.5 Navy Exchange Service Station Monitoring Well Gauging

Twenty-one monitoring wells, located on the Navy Exchange Service Station site (Figure 1-2), are gauged as part of the Long-Term Monitoring Program at Site 9 in order to provide groundwater level data north of the site.

1.4.6 Analytical Methods

The analytical requirements for Site 9 have been reduced following a review of analytical data collected during Monitoring Events 1 through 23. The sampling parameters will be limited to Target Compound List VOCs by EPA Method 8260B in groundwater, surface water, sediment, and leachate seep samples. Target Analyte List inorganics and Target Compound List SVOCs will be analyzed for selected groundwater samples.

If a monitoring well is being considered for deletion from the sampling program for VOCs, groundwater samples from that well will be analyzed using Method 8260B Modified for Selected Ion Mass for a minimum of four consecutive sampling rounds, in order to achieve the detection limit of 0.15 ug/L (State MEG for vinyl chloride). This method will not be used at a well where vinyl chloride is known to be above 2 ug/L, as established using US EPA Method 8260B.

1.5 REPORTS AND DATA PRESENTATION

Monitoring event reports will present the data in tabular format and on figures, and will provide additional descriptions of environmental trends that were previously included in annual reports. Annual reports are no longer prepared. Monitoring event reports will provide data interpretation in the form of tables, figures, trend graphs, and other graphical tools. Monitoring compliance will also include institutional controls that prevent the use of and contact with impacted groundwater and prevent the disturbance of or contact with the contents of the ash landfill. The monitoring event report for the spring sampling event will be limited to providing sample analytical results and trend graphs. The fall monitoring event report contain detailed presentation of data results and provide conclusions and recommendations based on the results of data collected from Site 9 for the year. The fall report will also provide a basis for discussing the findings of the Long-Term Monitoring Program sampling for Site 9, to propose refinements of the monitoring program, and to provide the response to comments letters received on that monitoring event report and spring report, if necessary.

Monitoring event reports will be submitted to EPA and MEDEP and other Restoration Advisory Board members to inform interested parties of the findings of environmental monitoring at Site 9. In addition to providing data interpretation in the monitoring event report, long-term

monitoring findings will be discussed at the Restoration Advisory Board meetings.

The following table provides a schedule of expected report issue months and regulator review and comment periods:

Activities	Deliverable	Deliverable Due Date
Spring Long-Term Monitoring Program Draft Monitoring Event Report	Draft monitoring event report	End of July
Regulator Comments Spring Long-Term Monitoring Program Draft Report[a]	Comment letters	45 days after receipt of the draft report
Response to Regulator Comments on Spring Long-Term Monitoring Program Draft Report	Response to comment document	30 days following receipt of comments on the draft report
Spring Long-Term Monitoring Program Final Monitoring Event Report	Final monitoring event reports (final report issued only after regulators agreed to response to comments for draft comments)	15 days following agreement, or acceptance of the response to comments on the draft document
Fall Long-Term Monitoring Program Draft Monitoring Event Report	Draft monitoring event report	End of November
Regulator Comments Fall Long-Term Monitoring Program Draft Report[a]	Comment letters	45 days after receipt of the draft report
Response to Regulator Comments on Fall Long-Term Monitoring Program Draft Report	Response to comment document	30 days following receipt of comments on the draft report
Fall Long-Term Monitoring Program Final Monitoring Event Report	Final monitoring event report (final report issued only after regulators agreed to response to comments for draft comments)	15 days following agreement, or acceptance of the response to comments on the draft document

(a) Includes comments received from the Restoration Advisory Board.

NOTE: Reports will also provide responses to comments on the draft monitoring event report.

Monitoring compliance with institutional controls will also be completed as noted in Section 3.1.7. If any unusual situations are noted during the visual inspection, the Navy Project Manager will be notified, who will then notify additional site stakeholders, as warranted.

3.3 ANALYTICAL PARAMETERS AND PROCEDURES

Groundwater samples collected from monitoring wells, surface water, sediment, and leachate seep samples may be analyzed for the following compounds:

- Target Compound List VOCs by EPA Method SW-846 Method 5030B/8260B.
- Target Compound List SVOCs by EPA SW-846 Method 3520A/8270C.
- Modifications to the monitoring network included in the LTMP may be appropriate if a trend of contaminant concentrations change significantly (e.g., four monitoring rounds). If a monitoring well is being considered for deletion from the sampling program for VOCs, groundwater samples from that well will be analyzed using EPA Method 8260B Modified for Selected Ion Mass for a minimum of four consecutive sampling rounds, in order to achieve the detection limit of 0.15 ug/L (State MEG for vinyl chloride). Vinyl chloride samples analyzed by this method will be unpreserved. The SIM Method will not be used at a well where vinyl chloride is known to be above 2 ug/L, as established using US EPA Method 8260B. Note – the monitoring well being considered for deletion from the LTM Program must be sampled utilizing the low-flow sampling procedure prior to being eliminated from the LTM Program.
- Target Analyte List elements, including metals by inductively coupled plasma by EPA Method 6010B and/or inductively coupled plasma/mass spectrometry by EPA Method 6020 and mercury by manual cold-vapor technique by EPA Methods 7470A or 7471A.
- The Long-Term Monitoring Program has been modified to include the determination of field parameters in accordance with EPA/600/4-79020 using the following methods: pH (Method 150.1), temperature (Method 170.1), specific conductance (Method 120.1), turbidity (Method 180.1), dissolved oxygen (Method 360.1), and Eh will be recorded for the groundwater, surface water, and seep samples collected at Site 9.
- Seep samples will be filtered at the laboratory and both the filtered solution and the filter cake solids portion will be analyzed for metals (by EPA Method 6010B and/or 6020 and mercury by EPA Method 7470A or 7471A separately) in order to provide a complete sample characterization.

Tables 3-1 and 3-2 summarize the Long-Term Monitoring Program analytical requirements for groundwater, surface water, sediment, and seep sampling.

3.4 PROGRAM MODIFICATIONS

A modification or reduction in the number of parameters may occur if a parameter is not detected in groundwater at monitoring locations for 4 consecutive sampling rounds or if additional contaminants are suspected of being present. Recommendations to change the monitoring program may be based on observed data trends. These performance monitoring criteria are consistent with 40 CFR 264.96, Compliance Monitoring for Corrective Action. If the long-term monitoring analytical results indicate that the monitoring program should be revised, then such changes will be made after that evaluation is conducted, the appropriate reviews are performed, and concurrence is obtained. Proposed modifications to the monitoring program will be submitted to EPA and MEDEP in writing in accordance with the 1990 Federal Facility Agreement, Section 6.10, entitled Subsequent Modifications of Final Reports. Note that a monitoring well, or wells, being considered for deletion from the LTM Program must be sampled utilizing the low-flow sampling procedure prior to being eliminated from the LTM Program. In addition to the five-year reviews, data will be reviewed at the bi-annual Restoration Advisory Board meetings, where decisions for more immediate action can be made, if necessary.

3.4.1 Data Reduction and Analytical Data Quality Review

A review of laboratory data will be conducted, as specified in the companion Base-Wide Quality Assurance Project Plan (in progress). This review will include an assessment of the precision, accuracy, representativeness, completeness, and comparability and analytical data quality objective requirements. The findings of the sample analytical data quality review will be included in the monitoring event report, and will report significant data discrepancies that may affect analytical data usability. Method detection limits will be included in monitoring event reports, as requested by EPA.

3.4.2 Laboratory Quality Assurance and Quality Control

As specified in the Base-Wide Quality Assurance Project Plan, appropriate laboratory quality assurance and quality control method blanks, trip blanks, rinsate blanks, and source water blanks will be collected and analyzed. This analysis will provide the required level of quality control for the analytical data. Should the laboratory be unable to meet the method detection limits during a regularly scheduled sampling event, or for any other reason does not provide usable analytical results, resampling will be conducted within 2 months. The data will be evaluated and reported to the regulatory agencies. The data evaluation will consider the applicability of the data to the LTMP objectives and recommend how the data should be utilized.

Additionally, in the event that the contract laboratory has exceeded the specified holding time for any particular analyte, a footnote will be added to the appropriate tables and text within the monitoring event report and annual report. Specific information regarding the holding times exceedance will also be contained in the precision, accuracy, representativeness, completeness, and comparability review.

3.4.3 Corrective Measures

If problems or concerns are identified during field activities, visual inspections, and/or laboratory analysis or reporting, corrective measures will be identified and implemented by the Navy prior to the next scheduled sampling event. Within 6 business days of the Navy Remedial Project Manager being notified of a problem or concern, the Navy Remedial Project Manager will communicate with the regulators that a problem has been identified, but not necessarily a corrective action. This will allow the regulators to be aware of the problem, or concern, but allow time for the Navy to develop an appropriate corrective action. Once the Navy has determined the appropriate corrective action, the regulators will be informed of the corrective action prior its implementation. Should the problem repeat itself in a subsequent monitoring event, the Navy will recommend additional corrective action to the regulatory agencies, and the Navy may implement such action upon agreement with EPA and MEDEP. Conditions may exist which cannot be corrected (i.e., highly turbid water samples causing analytical equipment interference). In those instances, corrective measures may not be practicable.